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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,796	10/19/1999	SCOTT KIRKPATRICK	YO999-421	3306

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MCGINN AND GIBB PC
SUITE 100
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ARLINGTON, VA 22209

EXAMINER

DELA TORRE, CRESCELLE N

ART UNIT	PAPER NUMBER
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2174

6

DATE MAILED: 09/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/420,796

Applicant(s)

KIRKPATRICK ET AL. *W*

Examiner

Crescelle N dela Torre

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The ^{Formal Drawings} ~~proposed drawing correction~~ filed on 03 December 1999 ^{are} is: a) ☒ approved b) ☐ disapproved by the Examiner. *Draftsperson*
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to communications: Formal Drawings, filed on 12/3/99.

This action is non-final.

Claims 1-25 are pending in this application. Claims 1, 16, 20, 23, and 25 are independent claims.

The present title of the invention is "Apparatus and Method for Using a Target Based Computer Vision System for User Interaction".

Drawings

1. The formal drawings were received on 12/3/99. These drawings are approved.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 18, "said target area" lacks clear antecedent basis.

Claim 19 also lacks clear antecedent basis because it mentions "another target area", but does not previously mention a target area.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 16, 20, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kazama et al (U.S. patent 6,111,580).

As per claim 16, Kazama et al, hereinafter Kazama, rendered anticipated the following subject matter:

enabling a computer to recognize a specific user action as corresponding to a specific computer event, at figures 13, 14, and column 9, lines 21-41;

capturing the specific user action with an image capture system, with TV camera 431, at figure 12, and column 9, line 18; and

performing the specific computer event when the specific user action is captured, at figure 14, column 8, lines 51-62, and column 9, lines 31-41.

As to claim 20, Kazama teaches the following:

an image capture system that captures a user image, with TV camera 431, at figure 12, and column 9, line 18;

an image display system that displays the captured image, at figures 13, 14; and
a computer system that recognized the specific user actions and associates the actions with specific computer commands, at figure 12, and column 9, lines 16-41.

Regarding claim 24, Kazama teaches a method for enabling a computer system to recognize specific user actions, the method comprising:

associating a first computer event with a first action displayed on the screen, at column 8, lines 51-62, and column 9, lines 21-41; and

storing information in a memory device such that the first action is associated with the first computer event, at column 13, lines 40-45.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-15, 17-19, 21-23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazama et al (U.S. patent 6,111,580) in view of Numazaki (U.S. patent 5,990,893).

As to claim 1, Kazama teaches the following subject matter:
displaying a user image within a display window, at figure 13;
associating a first computer event with a first user action, at column 8, lines 51-62, and column 9, lines 21-41; and
storing information in a memory device such that the first user action is associated with a first computer event, at column 13, lines 40-45.

Kazama teaches the above elements of claim 1. Kazama also teaches a hand area image 81, at figures 13, 14, and column 9, lines 24-41, in which the first user action is displayed. However, Kazama does not specifically teach that the hand area image 81 is a target area.

On the other hand, Numazaki teaches a data input device and method for controlling a pointer operation to operate a personal computer which includes a "function for discriminating a gesture input on the basis of change in position data to designate a specific operation" at column 2, lines 29-32. In order to control the pointer operation, Numazaki teaches a target area, with specified region 13, at figures 2, 2A, 2B, 4, wherein the "pointer region pass detecting means 2 detects the contact status between the pointer 10 and the region 13" at column 5, lines 60-67.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the target area of Numazaki in the invention of Kazama because it allows a user to input an operation related to an object "without use of any operating section for inputting data other than position data".

As per claim 2, Numazaki teaches detecting a change of state within the target area, at figure 2, and column 4, lines 47-57.

Kazama teaches detecting a change of a pattern of color [claim 3] at figure 3B, and column 5, lines 31-38; and storing a summary of the color pattern [claim 4] at column 5, lines 39-65.

Numazaki teaches detecting motion within the target area [claim 5] at column 4, lines 47-57; and detecting an object entering the target area [claim 6] with step S2, at figure 1A, and step S12, at figure 3A.

Regarding claim 7, Kazama teaches recognizing a first user action as a specific computer function to execute, at column 8, lines 51-62, column 9, lines 21-41, and column 13, lines 43-45.

As to claim 8, Numazaki describes various shapes for the target area, at column 6, lines 1-4.

Kazama teaches associating plural computer events with a first user action [claim 10] at column 5, lines 46-59, while the first user action remains displayed [claim 9], at figure 13.

Numazaki teaches positioning [claim 11] and locating [claim 12] the target area, at column 6, lines 12-17.

As per claim 13, Numazaki teaches:

producing another target area, shown with region 13, at figure 4, and column 6, lines 42-46;

associating a second computer event with a second user action, at column 7, lines 47-50; and

storing information in the memory device such that the second user action is associated with a second computer event, at figure 5, and column 7, lines 16-42, 47-50.

Numazaki describes a mouse click action [claim 14] at column 4, lines 29-30.

Regarding claim 15, Kazama teaches a different user image, at figure 13, and column 9, lines 35-41.

Claims 17-19 and 21-23 are respectively similar to claims 1, 11, 13, 1, 13, 1.

As to claim 25, Numazaki teaches a target area, with specified region 13, at figures 2, 2A, 2B, 4, wherein the "pointer region pass detecting means 2 detects the contact status between the pointer 10 and the region 13" at column 5, lines 60-67, while

Kazama teaches associating a first computer event with a first user action, at column 8, lines 51-62, and column 9, lines 21-41.

Conclusion

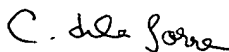
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The additionally cited U.S. patent documents describe various gesturing systems and methods.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crescelle N dela Torre whose telephone number is (703) 305-9782. The examiner can normally be reached on Monday-Thursday, from 8am-4pm, and on alternate Fridays, from 8am-3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (703) 308-0640. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for official communications; (703) 746-7238 for After Final communications; and (703) 746-7240 for non-official or draft communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


CRESCELLE N. DELA TORRE
PRIMARY EXAMINER